

In the claims:

1-22. (Cancelled)

23. (Currently Amended) ~~The~~ A pharmaceutical composition comprising a compound according to claim 22, selected from the group consisting of:
(*E,E*)-2-(benzylaminocarbonyl)-3-(3,4-dihydroxystyryl)acrylonitrile (CR4);
(*E,E*)-2-(3,4-dihydroxybenzylaminocarbonyl)-3-(3,5-dimethoxy-4-hydroxystyryl)acrylonitrile (CR11);
(*E,E*)-2-aminocarbonyl-3-(3,4-dihydroxystyryl)acrylonitrile (CR17);
(*E,E*)-2-(3,4-dihydroxybenzylaminocarbonyl)-3-styrylacrylonitrile (CR19);
(*E,E*)-2-(3,4-dihydroxybenzylaminocarbonyl)-3-(3,4-dihydroxystyryl)acrylonitrile (CR21); and
(*E,E*)-2-(β -ethanolaminocarbonyl)-3-(3,5-dimethoxy-4-hydroxystyryl)acrylonitrile (CR24).

24. (Previously Presented) A pharmaceutical composition comprising a pharmaceutically acceptable diluent or carrier and (*E,E*)-2-(benzylaminocarbonyl)-3-(3,4-dihydroxystyryl)acrylonitrile (CR4).

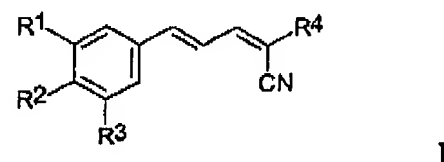
25. (Previously Presented) A pharmaceutical composition comprising a pharmaceutically acceptable diluent or carrier and (*E,E*)-2-(3,4-dihydroxybenzylaminocarbonyl)-3-(3,5-dimethoxy-4-hydroxystyryl)acrylonitrile (CR11).

26. (Currently Amended) A pharmaceutical composition comprising a pharmaceutically acceptable diluent or carrier and (*E,E*)-2-(3,4-dihydroxybenzylaminocarbonyl)-3-styrylacrylonitrile (CR19).

27. (Cancelled)

28. (Currently Amended) A method of modulating cell proliferation comprising administering ~~an effective amount of a composition of claim 23~~ to a cell or animal in

need thereof an effective amount of a compound of Formula I, or a salt, solvate or hydrate thereof:



wherein

R¹ and R² are each independently selected from the group consisting of H, OH, C₁₋₆alkyl, C₁₋₆alkoxy, NH₂, NH-C₁₋₆alkyl, N(C₁₋₆alkyl)(C₁₋₆alkyl), SH, S-C₁₋₆alkyl, O-Si(C₁₋₆alkyl)(C₁₋₆alkyl)(C₁₋₆alkyl), NO₂, CF₃, OCF₃ and halo;

R³ is selected from the group consisting of H, OH, C₁₋₆alkyl, C₁₋₆alkoxy, NH₂, NH-C₁₋₆alkyl, N(C₁₋₆alkyl)(C₁₋₆alkyl), SH, S-C₁₋₆alkyl, O-Si(C₁₋₆alkyl)(C₁₋₆alkyl)(C₁₋₆alkyl), NO₂, halo and CH₂-S-(CH₂)_n Ar;

R⁴ is selected from the group consisting of C(X)R⁵, SO₃Ar, NH₂, NH-C₁₋₆alkyl, N(C₁₋₆alkyl)(C₁₋₆alkyl), P(O)(OH)₂, P(O)(OC₁₋₆alkyl)₂, and C(NH₂)=C(CN)₂;

X is selected from O, S, NH and N-C₁₋₆alkyl;

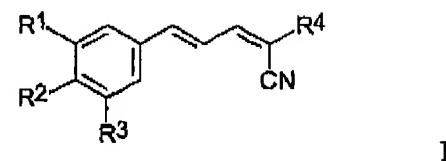
R⁵ is selected from the group consisting of NH₂, OH, NH(CH₂)_pAr, NH(CH₂)_pOH, (CH₂)_pOC₁₋₆alkyl, C₁₋₆alkyl, C₁₋₆alkoxy, NHNH₂, NHC(O)NH₂, NHC(O)C₁₋₆alkoxy, N-morpholino and N-pyrrolidino; and

Ar is an aromatic or heteroaromatic group, unsubstituted or substituted with 1-4 substituents, independently selected from the group consisting of OH, C₁₋₆alkyl, C₁₋₆alkoxy, NH₂, NH-C₁₋₆alkyl, N(C₁₋₆alkyl)(C₁₋₆alkyl), SH, S-C₁₋₆alkyl, NO₂, CF₃, OCF₃ and halo;

n is 0 to 4; and

p is 1-4.

29. (Currently Amended) A method of inhibiting cell proliferation comprising administering ~~an effective amount of a composition of claim 23~~ to a cell or animal in need thereof an effective amount of a compound of Formula I, or a salt, solvate or hydrate thereof:



wherein

R^1 and R^2 are each independently selected from the group consisting of H, OH, C_{1-6} alkyl, C_{1-6} alkoxy, NH_2 , $NH-C_{1-6}$ alkyl, $N(C_{1-6}alkyl)(C_{1-6}alkyl)$, SH, $S-C_{1-6}alkyl$, $O-Si(C_{1-6}alkyl)(C_{1-6}alkyl)(C_{1-6}alkyl)$, NO_2 , CF_3 , OCF_3 and halo;

R^3 is selected from the group consisting of H, OH, C_{1-6} alkyl, C_{1-6} alkoxy, NH_2 , $NH-C_{1-6}alkyl$, $N(C_{1-6}alkyl)(C_{1-6}alkyl)$, SH, $S-C_{1-6}alkyl$, $O-Si(C_{1-6}alkyl)(C_{1-6}alkyl)(C_{1-6}alkyl)$, NO_2 , halo and $CH_2-S-(CH_2)_nAr$;

R^4 is selected from the group consisting of $C(X)R^5$, SO_3Ar , NH_2 , $NH-C_{1-6}alkyl$, $N(C_{1-6}alkyl)(C_{1-6}alkyl)$, $P(O)(OH)_2$, $P(O)(OC_{1-6}alkyl)_2$, and $C(NH_2)=C(CN)_2$;

X is selected from O, S, NH and $N-C_{1-6}alkyl$;

R^5 is selected from the group consisting of NH_2 , OH, $NH(CH_2)_pAr$, $NH(CH_2)_pOH$, $(CH_2)_pOC_{1-6}alkyl$, $C_{1-6}alkyl$, $C_{1-6}alkoxy$, $NHNH_2$, $NHC(O)NH_2$, $NHC(O)C_{1-6}alkoxy$, N-morpholino and N-pyrrolidino; and

Ar is an aromatic or heteroaromatic group, unsubstituted or substituted with 1-4 substituents, independently selected from the group consisting of OH, $C_{1-6}alkyl$, $C_{1-6}alkoxy$, NH_2 , $NH-C_{1-6}alkyl$, $N(C_{1-6}alkyl)(C_{1-6}alkyl)$, SH, $S-C_{1-6}alkyl$, NO_2 , CF_3 , OCF_3 and halo;

n is 0 to 4; and

p is 1-4.

30. (Original) The method of claim 29, wherein the cell proliferation that is inhibited is cancer cell proliferation.

31. (Cancelled)

32. (Currently Amended) The method of claim 30 ~~or 31~~, wherein said cancer is a hematopoietic cell cancer.

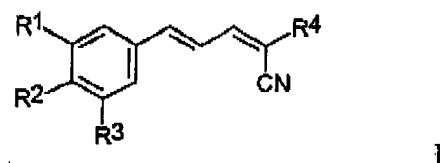
33. (Currently Amended) The method of claim 30 ~~or 31~~, wherein said cancer is a leukemia, a lymphoma, a myeloma or a carcinoma.

34. (Currently Amended) The method of claim 33, wherein said cancer is a leukemia selected from is acute lymphoblastic leukemia, Philadelphia+ leukemia, Philadelphia- leukemia, acute myelocytic leukemia, chronic myeloid leukemia, chronic lymphocytic leukemia or juvenile myelomonocyte leukemia.

35. (Previously Presented) The method of claim 34, wherein said leukemia is acute lymphoblastic leukemia.

36-37. (Cancelled)

38. (Currently Amended) A method of inhibiting hematopoietic cancer cell proliferation, comprising administering ~~an effective amount of a composition according to claim 1~~ to a cell or animal in need thereof an effective amount of a compound of Formula I, or a salt, solvate or hydrate thereof:



wherein

R¹ and R² are each independently selected from the group consisting of H, OH, C₁₋₆alkyl, C₁₋₆alkoxy, NH₂, NH-C₁₋₆alkyl, N(C₁₋₆alkyl)(C₁₋₆alkyl), SH, S-C₁₋₆alkyl, O-Si(C₁₋₆alkyl)(C₁₋₆alkyl)(C₁₋₆alkyl), NO₂, CF₃, OCF₃ and halo;

R³ is selected from the group consisting of H, OH, C₁₋₆alkyl, C₁₋₆alkoxy, NH₂, NH-C₁₋₆alkyl, N(C₁₋₆alkyl)(C₁₋₆alkyl), SH, S-C₁₋₆alkyl, O-Si(C₁₋₆alkyl)(C₁₋₆alkyl)(C₁₋₆alkyl), NO₂, halo and CH₂-S-(CH₂)_n Ar;

R⁴ is selected from the group consisting of C(X)R⁵, SO₃Ar, NH₂, NH-C₁₋₆alkyl, N(C₁₋₆alkyl)(C₁₋₆alkyl), P(O)(OH)₂, P(O)(OC₁₋₆alkyl)₂, and C(NH₂)-C(CN)₂;

X is selected from O, S, NH and N-C₁₋₆alkyl;

R⁵ is selected from the group consisting of NH₂, OH, NH(CH₂)_nAr, NH(CH₂)_nOH, (CH₂)_pOC₁₋₆alkyl, C₁₋₆alkyl, C₁₋₆alkoxy, NHNH₂, NHC(O)NH₂, NHC(O)C₁₋₆alkoxy, N-morpholino and N-pyrrolidino; and

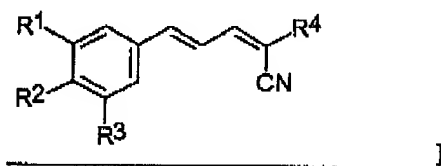
Ar is an aromatic or heteroaromatic group, unsubstituted or substituted with 1-4 substituents, independently selected from the group consisting of OH, C₁₋₆alkyl, C₁₋₆alkoxy, NH₂, NH-C₁₋₆alkyl, N(C₁₋₆alkyl)(C₁₋₆alkyl), SH, S-C₁₋₆alkyl, NO₂, CF₃, OCF₃ and halo;

n is 0 to 4; and

p is 1-4.

39-40. (Cancelled)

41. **(Currently Amended)** A method of inhibiting cancer cell proliferation according to claim 38, wherein said cancer is a leukemia, a lymphoma, a myeloma or a carcinoma, comprising administering to a cell or animal in need thereof an effective amount of a compound of Formula I, or a salt, solvate or hydrate thereof;



wherein

R¹ and R² are each independently selected from the group consisting of H, OH, C₁₋₆alkyl, C₁₋₆alkoxy, NH₂, NH-C₁₋₆alkyl, N(C₁₋₆alkyl)(C₁₋₆alkyl), SH, S-C₁₋₆alkyl, O-Si(C₁₋₆alkyl)(C₁₋₆alkyl)(C₁₋₆alkyl), NO₂, CF₃, OCF₃ and halo;

R³ is selected from the group consisting of H, OH, C₁₋₆alkyl, C₁₋₆alkoxy, NH₂, NH-C₁₋₆alkyl, N(C₁₋₆alkyl)(C₁₋₆alkyl), SH, S-C₁₋₆alkyl, O-Si(C₁₋₆alkyl)(C₁₋₆alkyl)(C₁₋₆alkyl), NO₂, halo and CH₂-S-(CH₂)_nAr;

R⁴ is selected from the group consisting of C(X)R⁵, SO₃Ar, NH₂, NH-C₁₋₆alkyl, N(C₁₋₆alkyl)(C₁₋₆alkyl), P(O)(OH)₂, P(O)(OC₁₋₆alkyl)₂, and C(NH₂)-C(CN)₂;

X is selected from O, S, NH and N-C₁₋₆alkyl;

R⁵ is selected from the group consisting of NH₂, OH, NH(CH₂)_nAr, NH(CH₂)_pOH, (CH₂)_pOC₁₋₆alkyl, C₁₋₆alkyl, C₁₋₆alkoxy, NHNH₂, NHC(O)NH₂, NHC(O)C₁₋₆alkoxy, N-morpholino and N-pyrrolidino; and

Ar is an aromatic or heteroaromatic group, unsubstituted or substituted with 1-4 substituents, independently selected from the group consisting of OH, C₁₋₆alkyl, C₁₋₆alkoxy, NH₂, NH-C₁₋₆alkyl, N(C₁₋₆alkyl)(C₁₋₆alkyl), SH, S-C₁₋₆alkyl, NO₂, CF₃, OCF₃ and halo;

n is 0 to 4; and

p is 1-4.

42. (Currently Amended) A method according to claim 41, wherein said cancer is a leukemia selected from is acute lymphoblastic leukemia, aggressive Philadelphia+ leukemia, acute myelocytic leukemia, chronic myeloid leukemia, chronic lymphocytic leukemia or juvenile myelomonocyte leukemia,

43. (Previously Presented) A method according to claim 42, wherein said leukemia is acute lymphoblastic leukemia.

44. (Previously Presented) A pharmaceutical composition comprising a pharmaceutically acceptable diluent or carrier and (E,E)-2-carboxy-3-(3,4-dihydroxystyryl)acrylonitrile.

45-46. (Cancelled)

47. (Currently Amended) A compound selected from:

(E,E)-2-(benzylaminocarbonyl)-3-(3,4-dihydroxystyryl)acrylonitrile (CR4);

(E,E)-2-(3,4-dihydroxybenzylaminocarbonyl)-3-(3,5-dimethoxy-4-hydroxystyryl)acrylonitrile (CR11);

(E,E)-2-aminocarbonyl-3-(3,4-dihydroxystyryl)acrylonitrile (CR17);

(E,E)-2-(3,4-dihydroxybenzylaminocarbonyl)-3-styrylacrylonitrile (CR19);

(E,E)-2-(3,4-dihydroxybenzylaminocarbonyl)-3-(3,4-dihydroxystyryl)acrylonitrile (CR21); and

(*E,E*)-2-(β -ethanolaminocarbonyl)-3-(3,5-dimethoxy-4-hydroxystyryl)acrylonitrile (CR24).

48. (Previously Presented) A compound (*E,E*)-2-benzylaminocarbonyl)-3-(3,4-dihydroxystyryl)acrylonitrile (CR4).

49. (Previously Presented) A compound (*E,E*)-2-(3,4-dihydroxybenzylaminocarbonyl)-3-(3,5-dimethoxy-4-hydroxystyryl)acrylonitrile (CR11).

50. (Previously Presented) A compound (*E,E*)-2-(3,4-dihydroxybenzylaminocarbonyl)-3-styrylacrylonitrile (CR19).

51. (Previously Presented) A compound (*E,E*)-2-carboxy-3-(3,4-dihydroxystyryl)acrylonitrile.

52-57. (Cancelled)

58. (Previously Presented) The compound (*E,E*)-2-carboxy-3-(3,5-dimethoxy-4-hydroxystyryl)acrylonitrile (CR-14).